



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,135	04/08/2004	Nils Kjellberg	-038724.53972US	6664

23911 7590 09/21/2005  
CROWELL & MORING LLP  
INTELLECTUAL PROPERTY GROUP  
P.O. BOX 14300  
WASHINGTON, DC 20044-4300

EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/820,135

Applicant(s)

KJELLBERG, NILS

Examiner

Irina S. Zemel

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6-8 and 11-15 is/are rejected.
- 7) ☒ Claim(s) 3-5,9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/4/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of invention Group I in the reply filed on 6-23-2005 is acknowledged. The traversal is on the ground(s) that both invention groups relate to the same invention, utilizing high density water to improve the separation of an aqueous brine solution, applied in two different positions of a two-stage process of converting soap to tall oil. This is not found persuasive because the inventions are still considered unrelated as not disclosed as being capable of use together and they have completely different modes of operation since one group requires specific neutralization step with specific agent (carbon dioxide) for neutralization, and the other does not. The searches for the two claimed Groups are not co-extensive.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2, 6-8, and 11-15 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for water solutions containing ash or dust from recovery process or water solutions containing metal salts as specified, for example, in claim 5, does not reasonably provide enablement for any other water solutions that may have density higher than pure water, such as , for example, water solutions containing various heavy metal impurities. The specification does not enable

Art Unit: 1711

any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. As discussed above, the invention is only enabled for processed using water solutions containing ash or dust from recovery process which contain specified metal salts. It would clearly require undue experimentation to determine whether any other existing water solution that has density higher than the density of pure water can be utilized in the claimed process.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of the claim limitation "water solution of increased density" is indeterminate. It is not clear what exactly is considered "increased density" and comparative to what standard the density of water is increased. This is especially unclear in view of limitations of claim 6 reciting the density limitation of "from about 1000 kg/m<sup>3</sup>", which limitation clearly encompasses the density generally associated with "normal" density or pure water (under the standard conditions).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1711

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,898,056 to Aitta et al., (hereinafter "Aitta").

Aitta discloses a process of separating aqueous sodium bicarbonate brine from soap oil in the recovery process of a pulp mill, comprising:

neutralizing a crude tall oil soap by forming a mixture comprising crude tall oil soap, water and carbon dioxide, and separating aqueous sodium bicarbonate brine and soap oil obtained from neutralization, with the subsequent step of treating the soap oil with sulfuric acid. See abstract, illustrative examples.

Since the meaning of the claim limitation of "water solution of increased density" is not clear, in view of claim 5 reciting the density of the water solution as about 1000 kg/m<sup>3</sup>, the claim limitation is considered to be met by any water (with the exception of highly purified distilled water), which is inherently a solution of various mineral salts.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aitta.

The disclosure of the Aitta reference is discussed above. The reference is silent with respect to pH changes of the mixtures, however, these limitations (claims 12-14) are believed to be inherently met by the process of Aitaa since the process disclosed by the reference is substantially identical to the claimed process.

The burden is shifted to the applicants to provide factual evidence to the contrary.

***Allowable Subject Matter***

Claims 3-5 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Since no prior art of record discloses a process for separating aqueous sodium bicarbonate brine from soap oil in the recovery process of a pulp mill which includes a step of neutralizing a crude tall oil soap, water and carbon dioxide mixture by using a water solution having mixed therewith ash or dust from a recovery process.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Each of US Patents 3,901,869, 6,348,566, 6,172,183, 6,004,360, 5,891,990 or 4,495,095 discloses processes for acidification of tall oil soap/water solutions with carbon dioxide.

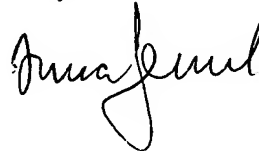
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel  
Examiner  
Art Unit 1711



ISZ